

Appl. No. 10/057,666
Amendment dated August 2, 2004
Reply to Office action of Feb. 3, 2004

Remarks/Arguments

Please reconsider the application in view of the above amendments and the following remarks.

Status of Claims

Claims 1-17 are rejected. Claims 1 and 13 are amended. Claims 11-12 and 14-17 have been canceled.

Objections

The Office has objected to the drawings as being informal and having hand written numerals. Formal drawings are submitted herewith. Accordingly, applicant requests that the objection be withdrawn.

The Office has also objected to claims 1, 16 and 17 for minor informalities. Applicant has amended claim 1 to correct the informalities and has canceled claims 16 and 17. Accordingly, applicant requests that this objection be withdrawn.

Rejections under 35 U.S.C. §103

Claims 1-17 are rejected under 35 U.S.C. 103 as being unpatentable over U.S. Patent No. 6,101,025 to Naganuma ("Naganuma"). Applicant respectfully traverses.

Applicant has amended claim 1 to include the subject matter of claims 11-12, namely, "a feed back circuit communicating with said first pump source and said second pump source." The feed back circuit generates a feedback signal to adjust the power output associated with one of the first and second pump sources when the other of the first and second pump sources fails. Naganuma fails to teach or suggest such a feed back circuit.

The Office action states that "using a feedback circuit to control pump power is well known in the art of optical amplifiers" and asserts that adding a feedback control circuit to the amplifying segments of Naganuma would have been obvious to control the pump power. Applicant respectfully submits that this does not establish prima facie obviousness. In support of an obviousness rejection, the office may not rely on conclusory statements that claimed features are "common knowledge" or "well known" as a substitute for evidence establishing a motivation

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to modify the prior art. See In re Lee, 61USPQ2d 1430 (Fed. Cir. 2002); See also MPEP 2144.03. The office has failed to provide any motivation from Naganuma or other prior art that suggests the desirability of using a feedback control circuit with the pumps disclosed by Naganuma.

Applicant has amended independent method claim 13 to include the subject matter of claims 14 and 16, namely, the first pump signal propagates through the first amplifying fiber segment in a co-propagating direction with respect to the first set of transmission signals and the second pump signal propagates through the second amplifying fiber segment in a counter-propagating direction with respect to the second set of transmission signals. Naganuma discloses pumps 32, 48 providing first and second pump signals that both propagate through the amplifying fiber segments in counter-propagating directions. The office action fails to provide any motivation suggesting it would be desirable to modify Naganuma in this way.

For the reasons stated above, applicant submits that the examiner has failed to establish a *prima facie* case of obviousness. Accordingly, applicant requests that the rejection under 35 U.S.C. 103 be withdrawn.

Conclusion

The claims have been shown to be allowable over the prior art. Applicant believes that this paper is responsive to each and every ground of rejection cited by the Examiner in the Action dated February 3, 2004, and respectfully requests favorable action in this application. The examiner is invited to telephone the undersigned, applicant's attorney of record, to facilitate advancement of the present application.

Please apply any charges not covered, or any credits, to Deposit Account 50-2121 (Reference Number 1022).

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Respectfully submitted,

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